इंटरनेट मानक

Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”
Mazdoor Kisan Shakti Sangathan
“The Right to Information, The Right to Live”

“पुराने को छोड नये के तरफ”
Jawaharlal Nehru
“Step Out From the Old to the New”

IS 10800 (1983): Cricket Balls [PCD 22: Sports Goods]

“ज्ञान से एक नये भारत का निर्माण”
Satyanarayan Gangaram Pitroda
“Invent a New India Using Knowledge”

Act Number 22 of 2005
The Indian Parliament
RIGHT TO INFORMATION

Made Available By
Public.Resource.Org

“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”
Bhartṛhari—Nītiśatakam
“Knowledge is such a treasure which cannot be stolen”

BLANK PAGE

BRUTUM FULMEN

IGNORANTIA JURIS NON EXCUSAT

PROTECTED BY COPYRIGHT

IS : 10800 - 1983

(Reaffirmed 2002)

Indian Standard

SPECIFICATION FOR CRICKET BALLS

UDC 685·635·82

© *Copyright* 1984

INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Gr 4

May 1984

Indian Standard

SPECIFICATION FOR CRICKET BALLS

Sports Goods Sectional Committee, CPDC 4

Chairman	*Representing*
Shri R. L. Anand	Netaji Subhash National Institute of Sports, Patiala
Members	
Dr C. M. Muthiah (*Alternate* to Shri R. L. Anand)	
Shri A. K. Anand	Nelco (India) Pvt Ltd, Meerut
Shri R. K. Bose	Office of the Development Commissioner, Small Scale Industries, New Delhi
Shri P. R. Chauhan	School Games Federation of India, Calcutta
Secretary (*Alternate*)	
Shri A. N. Choudhary	Jaya Shree Textile & Industries Ltd, Rishra (West Bengal)
Shri K. Gopinath (*Alternate*)	
Shri R. K. Ghosh	Directorate of Industries, Quality Marketing Scheme, Government of West Bengal
Shri B. B. Chaki (*Alternate*)	
Shri Vija Kharbanda	Freewill & Company, Jalandhar
Shri M. R. Kohli	Beat All Sports, Jalandhar
Shri Tilak Raj Kohli	International Sports, Meerut
Shri M. L. Kohli (*Alternate*)	
Shri Satya Prakash Mahajan	Delhi Sports Goods Manufacturers Association, Delhi
Shri K. K. Mehra	F. C. Sondhi & Co India Pvt Ltd, Jalandhar
Cdr T. Mishra	Services Sports Control Board, New Delhi
Capt P. Padmakaran (*Alternate*)	
President	All India Sports Manufacturers Federation (Regd), Meerut
President	Sports Goods Manufacturers & Exporters Association, Jalandhar
Secretary (*Alternate*)	
Shri K. K. Rohatagi	Directorate of Industries, Government of Uttar Pradesh, Kanpur
Shri I. D. Gupta (*Alternate*)	
Shri S. C. Ratnam	Madura Coats Ltd, Korathi (Kerala)
Shri D. Kumar (*Alternate*)	
Shri L. D. Sallan	Directorate of Industries, Quality Marking Centre, Government of Punjab, Chandigarh
Secretary	The Sports Goods Export Promotion Council, New Delhi

(*Continued on page* 2)

© *Copyright* 1984
INDIAN STANDARDS INSTITUTION
This publication is protected under the *Indian Copyright Act* (XIV of 1957) and reproduction in whole or in part by any means except with written permission of the publisher shall be deemed to be an infringement of copyright under the said Act.

(*Continued from page* 1)

Members	*Representing*
Shri Mohi-Ud-Din Shah	Industries & Commerce Directorate, Government of Jammu & Kashmir
Manager (*Alternate*)	
Shri S. N. Sharma	Forest Research Institute & Colleges, Dehra Dun
Shri N. K. Shukla (*Alternate*)	
Shri G. S. Sivia	Association of Indian Universities, New Delhi
Shri A. S. Talwar	Department of Sports, Shastri Bhavan, New Delhi
Shri S. K. Vankhade	Board of Control for Cricket in India, Bangalore
Shri Karmadikar (*Alternate*)	
Shri V. K. Verma	Railway Sports Control Board, New Delhi
Shri P. K. Nandi (*Alternate*)	
Dr A. S. Sethi, Director (Consr Prod & Med Instrs)	Director General, ISI (*Ex-officio Member*)

Secretary

Shri M. K. Bhatia
Deputy Director (Consr Prods & Med Instrs), ISI

Cricket Balls and Hockey Balls Subcommittee, CPDC 4 : 2

Convener	
Shri K. L. Kawatra	Meerut Sports Syndicate, Meerut
Members	
Shri K. B. Anand	Sansparels Greenlands Pvt Ltd, Meerut
Shri Arbind Abrol	F. C. Sondhi & Co (India) Pvt Ltd, Jalandhar
Shri Balkrishan Singh	Netaji Subhash National Institute of Sports, Patiala
Shri S. P. Nazarath (*Alternate*)	
Shri Ashwani Gupta	Jaya Shree Textiles & Industries Ltd, Rishra
Shri P. Khanna (*Alternate*)	
Shri D. K. Jain	COSCO (India) Pvt Ltd, Gurgaon
Shri Satya Prakash Mahajan	Delhi Sports Goods Manufacturers Association, Delhi
Shri P. C. Pandey	Directorate of Industries, Quality Marking Scheme, Government of U.P.
Shri I. D. Gupta (*Alternate*)	
President	All India Sports Manufacturers Federation (Regd), Meerut
Secretary (*Alternate*)	
Shri S. C. Ratnam	Madura Coats Ltd, Korathi (Kerala)
Shri D. Kumar (*Alternate*)	
Shri L. D. Sallan	Quality Marking Centre for Sports & Leather Goods (Directorate of Industries, Punjab), Chandigarh

Indian Standard

SPECIFICATION FOR CRICKET BALLS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 27 December 1983, after the draft finalized by the Sports Goods Sectional Committee had been approved by the Consumer Products and Medical Instruments Division Council.

0.2 The requirements for cricket and hockey balls were earlier covered in IS : 416-1978*. At the time of revision, the Committee responsible for preparing this standard had decided to separate the requirements for cricket and hockey balls in two standards. Consequently, the revised requirements for hockey balls only were covered in IS : 416-1983†.

0.2.1 In this standard requirements for three grades of cricket balls have been covered in place of two grades covered in earlier standards. Besides, some tests have also been covered to evaluate performance of cricket balls.

0.3 While preparing this standard assistance has been derived from BS 5993 : 1980 'Specification for leather-covered cricket balls', issued by the British Standards Institution.

1. SCOPE

1.1 This standard covers requirements for three grades of leather-covered cricket balls.

2. GRADES

2.1 The cricket balls shall be of the following three grades:

a) Special grade,

b) Grade 1, and

---

*Specification for cricket and hockey balls (*second revision*).

†Specification for hockey balls (*third revision*).

c) Grade 2.

NOTE 1 — The lower the number of the grade the more tightly specified are the criteria that determine the performance of the cricket balls. Grades 1 and 2 cricket balls are not considered satisfactory for use in first class cricket matches.

NOTE 2 — The words men's, women's and junior are to signify that the dimensions and mass of the cricket balls are within the limits required by the laws of games in relation respectively to men's, women's and junior cricket matches.

3. MATERIALS

3.1 Core — The core for special grade shall be made from corkwood and new wool (3-4 ply), the yarn being 89 tex (10s count) worsted. The proportion by mass of cork and wool shall be 2 : 1 (± 5 percent).

3.1.1 The core for Grades 1 and 2 shall be made from corkwood and new wool (3-4 ply), the yarn being 89 tex (10s count) worsted. The proportion by mass of cork and wool shall be 5 : 4 (± 5 percent) along with ready made centre of cork weighing 28 ± 3 g.

3.2 Cover — The material for cover shall conform to IS : 4553-1983*.

4. DIMENSIONS

4.1 Circumference — The circumference of a cricket ball, when measured in accordance with the method described in **12.2** shall conform to Table 1.

TABLE 1 MINIMUM AND MAXIMUM CIRCUMFERENCE OF CRICKET BALLS

(*Clauses* 4.1 *and* 12.2)

GRADE	MEN'S		WOMEN'S		JUNIOR	
	Min	*Max*	*Min*	*Max*	*Min*	*Max*
Special Grades	224	229	210	225	205	220
Grade 1 and 2	224	229	210	225	205	220

4.2 Width of Seam — The maximum and minimum widths of the seam of a cricket ball and the deviation from the mean width, when measured in accordance with the method described in **12.3**, shall conform to Table 2.

---

*Specification for leather for cricket balls (*first revision*).

TABLE 2 MINIMUM AND MAXIMUM SEAM WIDTHS

(*Clause* 4.2)

GRADE	SEAM WIDTH		DEVIATION FROM MEAN *Max*
	Min	*Max*	mm
	mm	mm	
Special Grade and Grade 1	19·5	21·0	± 0·5
Grade 2	19·0	22·0	± 1·0

4.3 Height of Seam and of External Stitching — The height of the seam and of external stitching of special grade of cricket balls, when measured in accordance with the method described in **12.4**, shall be between 0·5 to 0·9 mm.

NOTE — The height of seam and of external stitching of Grades 1 and 2 cricket balls are not specified.

5. REQUIREMENTS

5.1 General — Each cricket ball shall comprise a cover made from four pieces of leather stitched together around a core in such a way that the two closing or quarter seams shall be positioned diametrically opposite each other.

5.2 Covers

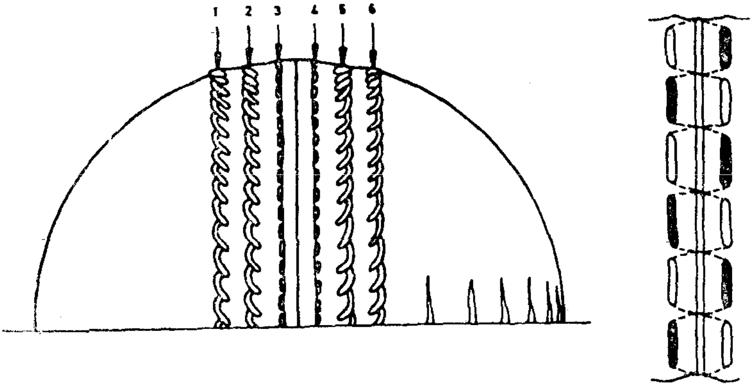
5.2.1 The covers of all grades shall be made in two halves. Each half shall comprise two pieces of leather joined together by a closing or quarter seam which is stitched internally. The seam shall be sewn with a waxed hemp thread of 1·5 mm nominal diameter and there shall be not less than 18 stitches.

5.3 Internal Stitching

5.3.1 The thread used for inner stitching shall be flax/cotton or equivalent quality of thread having a minimum breaking strength of 168 N (16·8 kgf). The thread for mouth and outer seam stitching shall have minimum breaking strength of 100 N (10 kgf) for special grade and 60 N (6 kgf) for Grades 1 and 2.

5.4 External Stitching

5.4.1 *Special Grade* — The two halves of the cover shall be joined together around a core by three double rows of double stitching, the stitching being carried out in such a way that each of the rows contributes to the strength of the seam. The two outer double rows shall be stitched with a thread of 1 mm nominal diameter linen flax/cotton. There shall be not less than 80 stitches and not more than 85 stitches in each row (*see* Fig. 1).



SAMPLE OF DOUBLE STITCHING OF ROWS 3 AND 4

FIG. 1 STITCHING

5.4.2 *Grade 1* — The two halves of the cover shall be joined together around a core by three double rows of double stitching, the stitching being carried out in such a way that each of the rows contributes to the strength of the seam. The two outer double rows shall be stitched with a thread of 0·7 mm to 1 mm nominal diameter linen flax/cotton. There shall be not less than 75 stitches in each row (*see* Fig. 1).

5.4.3 *Grade 2* — The two halves of the cover shall be joined together around a core by one double row of double stitching, the stitching being carried out in such a way that the row contributes to the strength of the seam. In addition, there shall be four outer single rows of double stitching. The stitching shall be with a thread of 0·7 mm nominal diameter. There shall be not less than 65 stitches in each row (*see* Fig. 1).

5.5 Finish

5.5.1 The finished balls shall be round and shall be polished or given a shine.

5.6 Colour

5.6.1 The colour of the cover of the cricket ball shall be red, the shade being agreed between manufacturer and purchaser.

5.6.2 The external stitching shall be white or natural.

6. MASS

6.1 The mass of a cricket ball immediately after it has been conditioned for 24 h in an atmosphere of temperature 27°C ± 2°C and of relative humidity 65 ± 5 percent shall conform to Table 3.

TABLE 3 MINIMUM AND MAXIMUM MASS OF CRICKET BALLS

(*Clause* 6.1)

GRADE	MEN'S		WOMEN'S		JUNIOR	
	Min	*Max*	*Min*	*Max*	*Min*	*Max*
	g	g	g	g	g	g
Special Grade	156	163	140	150	133	143
Grades 1 and 2	156	163	140	150	133	143

7. TEST REQUIREMENTS

7.1 General — Cricket balls in all three grades shall comply with the test requirements specified in **7.3** to **7.7**.

7.2 Sequence of Testing — The sequence of tests shall be carried out with a new ball for each of the following groups:

Group A

a) Shape
b) Height of bounce,
c) Hardness, and
d) Shape.

Group B

a) Shape,
b) Impact resistance,
c) Hardness, and
d) Shape.

Group C

a) Shape,
b) Wear resistance,
c) Hardness, and
d) Shape

7.2.1 Immediately prior to undertaking the above tests, the cricket ball shall be conditioned for 24 hours in an atmosphere of temperature 27°C ± 2°C and of relative humidity 65 ± 5 percent.

7.3 Shape — When the cricket ball is tested in accordance with the method described in **12.5** the circumference of the gauge determined shall not be greater than the circumference of the reference gauge by more than the value specified in Table 4.

TABLE 4 PERMITTED CHANGES IN SHAPE OF CRICKET BALLS

(*Clause* 7.3)

GROUP	SPECIAL GRADE AND GRADE 1	GRADE 2
	mm	mm
A	2	4
B	2	4
C	0	2

7.4 Height of Bounce — When the cricket ball is tested in accordance with the method described in **12.6** the mean height of bounce (expressed as a percentage) shall conform to Table 5.

TABLE 5 HEIGHT OF BOUNCE

GRADE	MEAN HEIGHT OF BOUNCE (PERCENT)	
	Min	*Max*
Special Grade	32	38
Grades 1 and 2	30	39

NOTE — Mean height bounce (percent) means height of bounce of percentage of height of 2 metres.

7.5 Hardness — When the cricket ball is tested for stages in accordance with the method described in **12.7,** the hardness shall conform to Table 6.

TABLE 6 MINIMUM AND MAXIMUM HARDNESS

GRADE	HARDNESS		GROUP C	
	Min	*Max*	*Min*	*Max*
Special Grade and Grade 1	155	180	150	185
Grade 2	150	190	145	195

7.6 Impact Resistance — After being tested in accordance with the method described in **12.7** the cricket ball shall comply with the appropriate requirements.

7.7 Wear Resistance — After being tested in accordance with the method described in **12.8** the cricket ball shall be subjected to a visual examination. There shall be no signs of any internal stitching the cricket ball shall be evenly worn, and no opening of the seam or splitting cover shall be evident.

8. SAMPLING AND CRITERIA FOR CONFORMITY

8.1 A suitable sampling scheme and criteria for acceptance is given in Appendix A.

8.2 For checking the material of the cricket balls, since the ball has to be cut and opened (destructive test), a sample size of 2 percent shall be taken. Out of 2 percent of sample size, if the first sample passes the requirements of material, the lot shall be considered to have passed the test. In case the first sample fails, then another two samples shall be taken and tested. If both the samples passes the requirements, the lot shall be considered to have passed the test, otherwise the lot shall be considered to have failed.

9. DESIGNATION

9.1 The designation of a cricket ball shall indicate:

a) Grade of the cricket ball (that is Special Grade, Grade 1 or Grade 2).

b) Size of the cricket ball (That is Men's, Women's or Junior), and

c) IS number.

10. MARKING

10.1 In case of Special Grade and Grade 1 cricket balls, the marking shall be of gold foil.

10.2 Any marking on cricket balls shall be so placed that approximately equal areas of marking are on each half of the cover.

10.3 Each ball shall be marked with the grade, the size, manufacturer's name and/or his initials or trade-mark.

10.4 The cricket ball may also be marked with theISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

11. PACKING

11.1 The balls shall be wrapped in moisture-proof paper, and packed in cardboard boxes in accordance with the best prevalent trade practice.

12. METHODS OF TEST

12.1 Atmosphere for Tests — The tests shall be carried out in an atmosphere of temperature 27°C ± 2°C and relative humidity 65 ± 5 percent.

12.2 Measurement of Circumference — The test shall be carried out using circumference gauges of the form shown in Fig. 2, with circumferences as stated in Table 1.

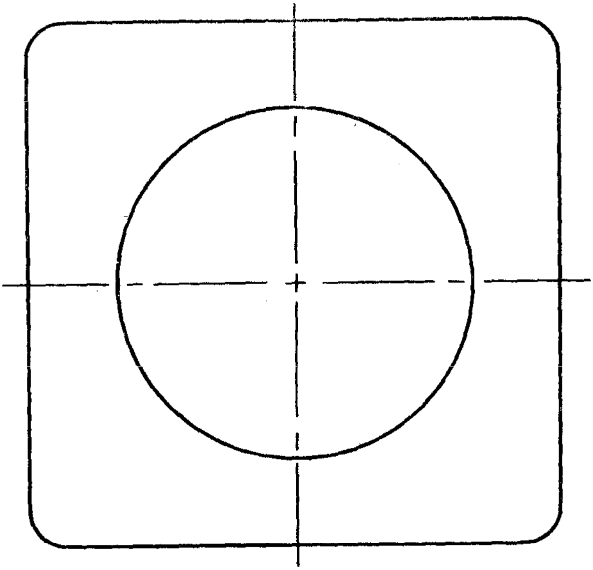


FIG. 2 CIRCUMFERENCE GAUGE

12.2.1 The cricket ball shall be placed with its seem perpendicular to the plane of the appropriate minimum circumference gauge. The cricket ball shall be rotated through 360°, keeping the seam perpendicular to the plane of the gauge. The cricket ball shall not pass through the gauge, in any position.

12.2.2 The test shall be repeated using the appropriate maximum circumference gauge. The cricket ball shall not be retained by the gauge, in any position.

12.3 Measurement of Seam Width — The width shall be measured across the outer edges of the seam (*see* Fig. 3), at six positions around the seam. The positions shall be selected so as to measure the maximum and minimum widths and the four other positions shall be at each 90° increments of the circumference of the ball.

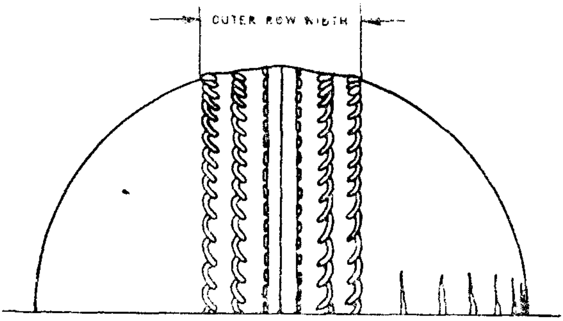


FIG. 3 WIDTH ACROSS OUTER EDGES OF SEAM

12.3.1 From the six results, the mean width of the seam and the deviation from the mean of the maximum and minimum widths shall be calculated.

12.4 Measurement of the Height of the Seam and of the External Stitching — A magnification of 10 × the profile of the ball shall be projected on to a screen.

12.4.1 Using the magnified profile, the projected height of the stitching and of the seam from a line drawn tangentially to the surface of the ball (*see* Fig. 4) at four positions positioned equally spaced around the seam shall be measured. From the maximum and minimum results obtained, the actual maximum and minimum heights of the seam and of the external stitching shall be calculated.

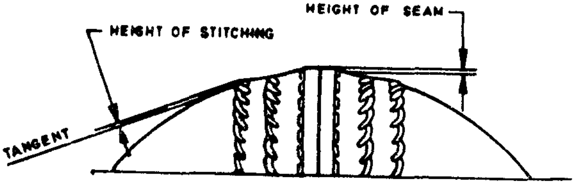


FIG. 4 HEIGHT OF STITCHING AND SEAM

NOTE — A travelling microscope with the magnification of 8 × may also be used as an alternate method for measurement of height of seam and the external stitching.

12.5 Determination of Shape — The test shall be carried out using circumference gauge of the form shown in Fig. 2, with circumference as stated in Table 7.

TABLE 7 CIRCUMFERENCE OF GAUGES

	MEN'S	WOMEN'S	JUNIOR
	Special Grade, Grades 1 and 2	Special Grade, Grades 1 and 2	Special Grade, Grades 1 and 2
	mm	mm	mm
Circumference of gauges	222 to 232 in steps of 2 mm	208 to 228 in steps of 2 mm	204 to 224 in steps of 2 mm

12.5.1 At test sequence (a) of each group (*see* **7.2**), the reference size for the cricket ball shall be determined as follows:

> 'The gauge of smallest circumference through which the cricket ball passes in any one position when its seam is perpendicular to the plane of the gauge, shall be determined.'

12.5.2 At test sequence (d) of each group (*see* **7.2**) the deviation in shape of the cricket ball shall be determined as follows:

> 'The gauge of smallest circumference through which the cricket ball passes in all positions, when its seam is perpendicular to the plane of the gauge, shall be determined'.

12.5.2.1 The deviation in shape shall be calculated by subtracting the circumference of this gauge from the circumference of the reference gauge as measured in **12.5.1**.

12.6 Measurement of Height of Bounce — The cricket ball shall be allowed to fall freely through a distance of 2 m on to a smooth, flat horizontal concrete base. The height of the first bounce shall be measured from the bottom of the ball.

12.6.1 The test shall be repeated in order to obtain ten valid results, (bounces on the seam of the ball are to be ignored). The mean value of the five highest valid results shall be calculated to the nearest 10 mm.

12.7 Measurement of Hardness and Impact Resistance

12.7.1 The apparatus shall consist of a flat steel base plate, a steel guided striker, release mechanism and suitable instrumentation.

12.7.1.1 The base plate shall be attached to a rigid monolithic base of concrete having a mass of at least 1 000 kg and height of at least 0·9 m. The striker shall have mass of 5 kg ± 0·1 kg, with a flat circular striking surface of diameter 125 mm. The striker shall be able to drop through a distance of at least 2 m in a guided fall with minimum retardation from the guides. The guide shall be vertical to within 1 in 400.

12.7.1.2 Attached firmly to the striker shall be an acceleration transducer with its sensitive axis coincident to that of the striker within ± 2°. The transducer shall be capable of withstanding a 200 g shock without damage.

12.7.2 *Measurement of Hardness* — The cricket ball shall be placed with its seam parallel to the base plate. The striker shall be raised to a a height of 1·1 m above the surface of the cricket ball. The striker shall be released and the peak deceleration (g) during impact shall be measured. This value shall be recorded as the hardness of the cricket ball.

12.7.3 *Impact Test* — The impact test shall be carried out by using the apparatus described in **12.7.1** and the method described in **12.7.2** except that (a) the striker is raised to a height of 2·0 m above the surface of the cricket ball and (b) the peak deceleration need not be recorded.

NOTE — The hardness and impact tests are recommendatory for Grades 1 and 2 circket balls.

12.7.3.1 The test shall be carried out in each of the six directions described in Fig. 5.

12.8 Determination of Wear Resistance

12.8.1 *Apparatus* — The apparatus shall consist of a rotating timber drum of 1 m circumference and a firm mechanism. A cloth-backed abrasive material of grit size 500 shall be mounted on the drum. The

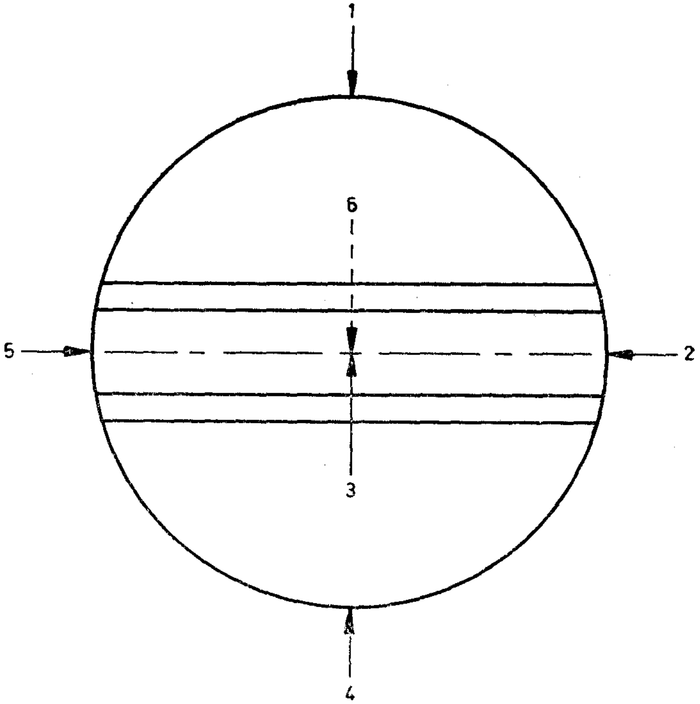


FIG. 5 ORIENTATION OF CRICKET BALL FOR IMPACT TEST

drum shall be driven with the velocity of its surface as 27 ± 0·5 m/s. The firing mechanism shall be capable of firing the cricket balls at a velocity of 2 m/s and at an angle of 60° to the drum (*see* Fig. 6).

12.8.2 *Procedure* — Using the firing mechanism, the cricket ball shall be fired at the rotating drum 500 times. After which a visual inspection of the cricket ball shall be carried out.

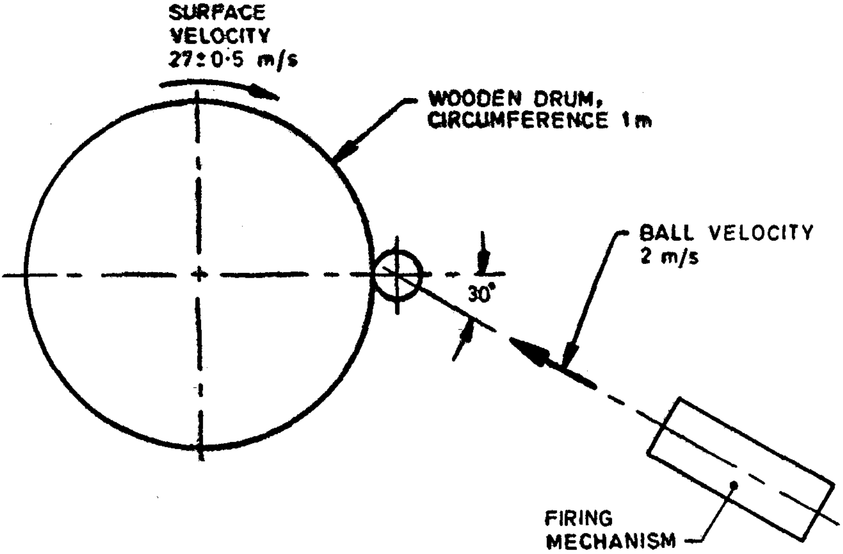


FIG. 6 APPARATUS FOR DETERMINATION OF WEAR RESISTANCE

APPENDIX A

(*Clause* 8.1)

SAMPLING AND CRITERIA FOR CONFORMITY FOR CRICKET BALLS

A-1. LOT

A-1.1 In any consignment, all the balls of the same grade, designation and manufactured from the same raw material under similar conditions shall be grouped together to constitute a lot.

A-1.2 For ascertaining the conformity of the lot to the requirements of the standard, samples of ball shall be selected and tested separately from each lot.

A-2. SAMPLING

A-2.1 The number of balls to be selected at random from the lot shall depend upon the size of the lot and shall be in accordance with col 1, 2 and 5 of Table 8.

TABLE 8 SAMPLE SIZE AND CRITERIA FOR CONFORMITY

(*Clause* A-2.1)

LOT SIZE	SAMPLE SIZE	ACCEPTANCE NUMBER FOR DIMENSIONAL TEST (**4.1** to **4.3**)	SUB-SAMPLE SIZE FOR REQUIREMENTS (**5.1** to **5.6**)	FOR TEST IN EACH OF GROUPS A, B AND C	
				Sample Size	Acceptance Number
(1)	(2)	(3)	(4)	(5)	(6)
Up to 25	3	0	1	1	0
26 to 50	5	0	1	2	0
51 to 100	8	1	2	3	0
101 to 150	10	1	2	4	1
151 to 300	20	2	3	5	1
301 and above	32	3	3	6	2

A-2.2 The balls in the sample shall be selected at random from the lot and in order to ensure the randomness of selection in accordance with IS : 4905-1968*.

A-3. NUMBER OF TESTS AND CRITERIA FOR CONFORMITY

A-3.1 The balls selected according to **A-2.1** and **A-2.2** shall be inspected for dimensional tests (**4.1** to **4.3**). A ball failing in any one or more of the dimensional tests shall be considered as defective. The lot shall be considered as conforming to the dimensional tests if the number of defective balls in the sample does not exceed the number given in col 3 of Table 8.

A-3.2 The lot having been found conforming to **A-3.1** shall be tested for requirements in **5.1** to **5.6**. For this purpose a sub-sample of size given in col 4 of Table 8 shall be taken from balls selected as for **A-2.1** and **A-2.2**. A ball failing in any one or more of the requirements shall be considered as defective. The lot shall be considered as conforming to requirements of the tests, if none of the balls in the sample size fail.

A-3.3 The lot having been found conforming to **A-3.2** a sample of balls shall be tested for tests given in Groups A, B, and C. The number of balls to be selected for each Group A, B and C shall be in accordance with col 5 of Table 8. The lot shall be considered as conforming to the tests as mentioned in Groups A, B and C if the number of defectives in each sample does not exceed the number given in col 6 of Table 8.

A-3.4 The lot shall be considered as conforming to the tests mentioned above in **A-3.1**, **A-3.2** and **A-3.3** are satisfied.

---

*Methods for random sampling.